#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-020040 Address: 333 Burma Road **Date Inspected:** 09-Apr-2010

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 645 **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Yes Liu Hua Jie, Lu Li Qing, Geng W. W. Present: No Yes N/A Yes **Inspected CWI report:** No **Rod Oven in Use:** No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No

Yes No N/A **Delayed / Cancelled: Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG)

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Amit K. Juvekar, was present during the times noted above for observations relative to the work being performed.

This QA Inspector observed the following work in progress:

Assembly, Bay 14, 12CE, Corner Assembly CA3005, Edge plate to Side plate.

FCAW welding of weld joint CA3005-003; located on assembly, Bay 14, 12CE. Welder is identified as 055491, 052696; ZPMC Quality Control Inspector (QC) is identified as Lu Li Qing. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4B-F.

Assembly, Bay 14, 12AW, PP112.

FCAW welding of weld joint SEG3004D-017; located on assembly, Bay 14, 12AW. Welder is identified as 20125; ZPMC Quality Control Inspector (QC) is identified as Liu Hua Jie. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4B-F.

Assembly, Bay 14, Traveler rail.

During the Quality Assurance (QA) random in-process visual inspection, this QA inspector observed ZPMC Personnel performing Ultrasonic Testing (UT) of Traveler rail identified as 20TR2-006. The attached photographs provide additional detail.

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Assembly, Bay 14, 11EW, Deck Panel Diaphragm to Deck Panel Diaphragm.

FCAW welding of weld joint SEG073\*-020; located on assembly, Bay 14, 12CE. Welder is identified as 045246; ZPMC Quality Control Inspector (QC) is identified as Liu Hua Jie. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-P-2213-B-U2-FCM-1.

Assembly, Bay 14, 12CE, Floor Beam to Bottom Panel.

FCAW welding of weld joint SEG3003G-038, 039, 042, 043; located on assembly, Bay 14, 12CE. Welder is identified as 044801; ZPMC Quality Control Inspector (QC) is identified as Lu Li Qing. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2132.

Assembly, Bay 14, 12CE, FL2-1 flange to Longitudinal Diaphragm.

SMAW welding of weld joint SEG3003B-011, 012; located on assembly, Bay 14, 12CE. Welder is identified as 049339; ZPMC Quality Control Inspector (QC) is identified as Lu Li Qing. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2114-FCM-1.

Assembly, Bay 13, Mock-Up for 13AE.

During the Quality Assurance (QA) random in-process visual inspection, this QA inspector observed ZPMC carring out Mock-Up for 13AE. This QA inspector noticed following things,

- fit up of Longitudinal diaphragms SA3016A/B, SA3017A/B with bottom panel in process.
- fit up of X3472D plate with bottom panel in process.

This QA Inspector carried out NDE on following

Assembly, Bay 14, 11DE, Edge Panel to Deck Panel.

This QA inspector performs Random Ultrasonic Testing (UT) of approximately 10% area previously tested and accepted by ZPMC Quality Control personnel (Notification # 005490), FOR GREEN TAG. This QA Inspector generated an UT report(TL-6027) for this date. The members are identified as SEG072\*-45, 46, 47.

Assembly, Bay 14, Traveler rail.

This QA inspector performs Random Ultrasonic Testing (UT) of approximately 10% area previously tested and accepted by ZPMC Quality Control personnel (Notification # 005493), FOR GREEN TAG. This QA Inspector generated an UT report(TL-6027) for this date. The members are identified as

- 1) 10TR3-023-007, 013.
- 2) 10TR3-022-007, 013.
- 3) 11TR2-015-007, 013.
- 4) 10TR3-034-007, 013.
- 5) 10TR3-021-007, 013.
- 6) 11TR2-014-007, 013.
- 7) 10TR3-005-007, 013.
- 8) 10TR3-031-007, 013.
- 9) 10TR3-025-007, 013.
- 10)10TR3-032-007, 013.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 1500.042.2372, who represents the Office of Structural Materials for your project.

Inspected By:	Juvekar,Amit	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer